



- NEMA 24 Frame Size (Same Mounting and Shaft Dimensions as NEMA 23 Size, but 30%-50% More Torque than NEMA 23 Motors)
- 1.8° Step Angle
- IP50 Rated
- Higher Torque than Other Motor Manufacturers
- Up to 475 oz-in of Peak Torque
- Shaft Flat as Standard
- Can be Customized for
  - Winding Current
  - Shaft Options
  - Cables and Connectors



If you need more torque from a NEMA 23 motor but can't move to a NEMA 34, then the 24Y Series is your answer! They are bulkier than the standard 23 Frame motors, but have the same mounting and shaft dimensions as well as higher torque. A broad line of motor windings and stack lengths are available off-the-shelf, or the motors can be customized to fit your machine requirements. The standard 8-lead motor can be connected in all possible configurations: series, unipolar, or parallel, to allow the maximum flexibility for your application. We can also customize the winding to perfectly match your voltage, current, and maximum operating speed.

## See *Accessories* on our website for optional motor adders such as encoders, brakes, cables, and connectors. For compatible drivers, see the MBC25081TB, MBC05641, MBC12101, and Driver Packs.

NEMA Size	Bipolar Torque (oz-in)	Series RMS Current (A)	Series Voltage (V)	Series Resistance (ohm)	Series Inductance (mH)	Rotor Inertia (oz-in-sec²)	Shaft Diameter (in)	# of Lead Wires	Weight (lbs)	"L" Length (in)
24	153	1.4	4.2	3.0	8.0	0.0039	0.25	8	1.32	1.85
24	229	1.4	5.04	3.6	14.4	0.0057	0.25	8	1.70	2.20
24	292	1.4	6.72	4.8	18.4	0.0081	0.25	8	2.5	2.64
24	292	2.8	4.48	1.6	6.8	0.0081	0.25	8	2.65	2.64
24	380	1.4	6.16	4.4	20.0	0.0012	0.25	8	2.65	3.03
24	431	1.4	8.4	6.0	27.2	0.0119	0.25	8	3.09	3.46
24	431	2.1	5.46	2.6	12.8	0.0119	0.25	8	3.09	3.46
24	431	2.8	3.92	1.4	7.2	0.0119	0.25	8	3.09	3.46
	NEMA Size   24	NEMA Size Bipolar locate   24 153   24 229   24 292   24 292   24 380   24 380   24 431   24 431	NEMA SizeBipolar torque (oz.in)Series RMS Current (A)241531.4242291.4242921.4242922.8243801.4244311.4244312.1244312.8	NEMA SizeBipolar Torque (oz-in)Series RMS Current (A)Series Voltage (V)241531.44.2242291.45.04242921.46.72242922.84.48243801.46.16244311.48.4244312.15.46244312.83.92	NEMA SizeBipolar Torque (oz-in)Series RMS CurrentSeries Voltage (V)Series Resistance (ohm)241531.44.23.0242291.45.043.6242921.46.724.8242922.84.481.6243801.46.164.4244311.48.46.0244312.15.462.6244312.83.921.4	NEMA SizeBipolar Torque (oz-in)Series RMS Current (A)Series Voltage (V)Series Resistance (ohm)Series 	NEMA SizeBipolar Torque (oz-in)Series RMS Current (A)Series Voltage (V)Series Resistance (ohm)Series Inductance (mH)Rotor Inertia (oz-in-sec2)241531.44.23.08.00.0039242291.45.043.614.40.0057242921.46.724.818.40.0081242922.84.481.66.80.0012243801.46.164.420.00.0012244311.48.46.027.20.0119244312.83.921.47.20.0119	NEMA SizeBipolar Torque (oz-in)Series Current (A)Series Voltage (V)Series Resistance (ohm)Series Inductance (mH)Rotor Inertia (oz-in-sec2)Shaft Diameter (in)241531.44.23.08.00.00390.25242291.45.043.614.40.00570.25242921.46.724.818.40.00810.25242922.84.481.66.80.00810.25243801.46.164.420.00.00120.25244311.48.46.027.20.01190.25244312.83.921.47.20.01190.25	NEMA SizeBipolar Torque (oz-in)Series RMS Current (A)Series Voltage (V)Series Resistance (ohm)Series Inductance (mH)Rotor Inertia (oz-in-sec2)Shaft Lead Lead Wires241531.44.23.08.00.00390.258242291.45.043.614.40.00570.258242921.46.724.818.40.00810.258242922.84.481.66.80.00120.258243801.46.164.420.00.00120.258244311.48.46.027.20.01190.258244312.83.921.47.20.01190.258	NEMA SizeBipolar Torque (oz-in)Series RMS Current (A)Series voltage (V)Series Resistance (ohm)Series Inductance (mH)Rotor Inertia (oz-in-sec2)Shaft Lead Wires# of Lead WiresWeight (lbs)241531.44.23.08.00.00390.2581.32242291.45.043.614.40.00570.2581.70242921.46.724.818.40.00810.2582.5242922.84.481.66.80.00810.2582.65243801.46.164.420.00.00120.2582.65244311.48.46.027.20.01190.2583.09244312.83.921.47.20.01190.2583.09

Note: The 7th character "S" denotes a single shaft. Custom leadwires, cables, connectors and windings are available upon request.

Step Angle Accuracy:	± 5% (Full Step, No Load)	Insulation Resistance:	100M Ohm Min, 500VDC
Resistance Accuracy:	± 10%	Dielectric Strength:	500VDC for 1 minute
Inductance Accuracy:	± 20%	Shaft Radial Play:	0.02" Max (1.0 lbs)
Temperature Rise:	80°C Max (2 Phases On)	End Play:	0.08" Max (1.0 lbs)
Ambient Temperature:	-20° to +50° C	Max Radial Force:	16.9 lbs (0.79" from flange)
Insulation Type:	Class B (130°C Internal)	Max Axial Force:	3.4 lbs-Force

## L010280





Note 1: Applies to dual shaft option only

			SPECIFICATION	CONVERSION	TABLE		
		Connecti	ion Current (A	) Resistanc	e (R) Inductanc	e (L)	
		Series Star	ndard A	R	L		
		Paralle	el 2A	R / 4	L/4		
		Unipola	ar 1.414A	R / 2	L/4		
BLK · ORG ·	-I		RED— BLK— RED/WHT—	GRN WHT W GRNMHT	e Wht/b Wht/o O		
	Conn	ection	Lead Wire Co	nnection	Lead Wire	Color	
	4 - Lead Bipolar Series MBC or MLP Serie		Phase 1 Phase 3 Phase 2 Phase 4 Connect Wires wi Connect Wires wi	(A) (/A) (B) /B) th Wire Nut th Wire Nut	Blacl Orang Red Yellov White/Black & W White/Red & W	k je v /hite/Orange /hite/Yellow	
4 - Lead Bi Paralle MBC or MLP		d Bipolar allel 1LP Series	Phase 1 Phase 3 Phase 2 Phase 4	(A) (/A) (B) /B)	Black & White Orange & Wh Red & White Yellow & Wh	e/Orange hite/Black e/Yellow hite/Red	
	6 - Lead BLD, TI	Unipolar M Series	Phase Phase Phase Phase Common Phas Common Phase	1 3 2 4 se 1 & 3 se 2 & 4	Blacl Orang Red Yellov White/Black & W White/Red & W	k je v /hite/Orange /hite/Yellow	

DIMENSIONS

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